

REMARKS

Claims 14-23 are pending in the application.

Claims 14-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Bienert et al. (U.S. 6,506,611). The Examiner argues that Bienert discloses a device for parallel processing a plurality of fluids, which “includes a metering head having a plurality of metering devices that are controlled individually or block-by-block with an activating device.” (Office Action, p. 2). However, even if we assume that Bienert discloses controlling metering devices “block-by-block,” Bienert does not disclose or suggest an apparatus that includes a printhead having subsets of two or more pins and “a plurality of pin lifting mechanisms, each pin lifting mechanism of the plurality of pin lifting mechanisms associated with a different one of said subsets and configured to lift the pins of the subset together relative to the printhead,” as is recited in claim 14.

Bienert discloses a system in which actuators pushes micropipettes or picking pins downward, but does not subsequently lift them upward. Instead, each individual micropipette or picking pin has a spring assembly that lifts it when the actuator pressure is released. Specifically, Bienert discloses relative to Fig. 3:

In the basic position, the pipette piston 255 is completely retracted by spring force (arrow F), thereby providing for a large pipetting volume in the cylinder. When the accompanying actuating element is actuated (see FIG. 2), a pneumatic cylinder of the actuating matrix 210 presses an actuating needle 220 to the end support 256. The pneumatic cylinder works against the spring force of the pin spring 257 and the internal piston spring, and pushes the pipette piston 255 toward the pipette tip. When removing the working pressure from the pneumatic cylinder, the pipette position returns again under the action of to (sic) the pin and piston springs 257. (Col. 8, lines 15-26, emphasis added).

Bienert discloses that the embodiments shown in Figs. 5 and 6, which the Examiner points to for support of “block-by-block” control, uses substantially the same configuration as that of Fig. 3 (col. 10, lines 12-15). Indeed, Bienert discloses that in the embodiment of Fig. 5, “[a]fter the force P exerted by the cylinder device 501 has been released, the pipette pistons are simultaneously moved upward by the pin springs,” (col. 10, lines 37-39), emphasis added. Figs.

5 and 6 show that each pipette includes its own springs to provide an upward restoring force F after downward force P is removed. Although Bienert discloses that the “activating element 601 can be a pneumatic cylinder or electric lifting magnet,” Bienert solely discloses that the cylinder or magnet exerts a downward force and the springs associated with each pipette exert an upward force.

Bienert does not disclose or suggest a system in which each pin lifting mechanism associated with a pin subset is configured to lift the pins of the subset together relative to the printhead, as claim 14 recites. Regardless of whether we consider the single-pipette embodiment of Fig. 3, or the “block-by-block” embodiments of Figs. 5 or 6, Bienert solely discloses using springs to individually lift pipettes after releasing downward force exerted by an actuator. None of the springs disclosed by Bienert are “configured to lift the pins of the subset together relative to the printhead,” as recited in claim 14. Thus, Bienert does not anticipate claim 14, or claims dependent thereon.

The attention of the Examiner is hereby directed to the unacknowledged references listed in the Information Disclosure Statement (PTO-1449) filed on February 24, 2004, a copy of which references were submitted therewith. Applicants respectfully request that the Examiner initial the individual reference on this sheet, indicating that the reference has been considered in the application, and provide Applicants with a copy of the initialed page with the Examiner's next communication.


In view of the above, Applicant believes the pending application is in condition for allowance, and respectfully requests the Examiner to allow the claims to issue. No fees are believed to be due at this time. However, please charge any fees, or credit any overpayments, to Deposit Account No. 08-0219.

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Respectfully submitted,

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